C l a i m s

1. A method for leakage control of the internal faces that separate the primary and secondary sides of a plate heat exchanger, **characterised in** that a leakage control is performed in a first step wherein a colorant-containing liquid is supplied to one of the primary and secondary sides, while a clear liquid that is recycled is supplied to the opposite side, whereby the presence of leakages in the heat exchanger is verified by detection of the presence of the colorant in the clear liquid.

2. A method for localization of leakages between the product and service sides of a heat exchanger by use of a colorant that passes through the leakages and is subsequently detected visually, **characterised in** that a colorant-containing liquid is supplied to the one side of the heat exchanger, and that this side is pressurised for a period of time, while the opposite side is allowed to continue to contain air, following which the heat exchanger is drained and disassembled, and the location of the leakages is determined by visual inspection of the plates.

3. A method according to claim 1 or 2, **characterised in** that the differential pressure between the product and service sides is close to or identical with the differential pressures prevailing during actual operation of the heat exchanger.

4. A method according to claim 1 or 2, **characterised in** that the viscosity of the colorant-containing liquid corresponds to the viscosity of the liquid that passes

through the corresponding side of the heat exchanger in actual operation.

5. A method according to claim 1 or 2, **characterised in** that the passage of the colorant-containing liquid corresponds to the passage on the corresponding side of the heat exchanger in actual operation.

6. A method according to claim 1 or 2, **characterised in** that the colorant is a fluorescent substance.

7. A method according to claim 1 or 2, **characterised in that** the detection of the colorant is effected by use of UV-light.

8. A method according to claim 1 or 2, **characterised in** that the colorant is a salt of fluoresceine, preferably the sodium salt uranine thereof.

9. A method for in situ leakage control and localisation of leakages in the internal faces that separate the product and service sides of a heat exchanger, **characterised in** that a leakage control is performed in a first step wherein a colorant-containing solution is supplied to one of the product and service sides, while a clear liquid that is recycled is supplied to the opposite side, whereby the presence of leakages in the heat exchanger is verified by detection of the colorant in the clear liquid; and that, in a second step, the presence of leakages entails that the side with the colorant-containing solution is pressurised for a period of time, while the other side is allowed to remain filled with air, following which the heat exchanger is drained and

disassembled, and the location of the leakages is determined by visual inspection of the plates.

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